

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: T. Aizawa et al. Attorney Docket No.: NAI125844
Application No.: 10543,141 Art Unit: 1754
Filed: April 27, 2006 Confirmation No.: 4288
Title: ALUMINUM MATERIAL HAVING A1N REGION ON THE SURFACE
THEREOF AND METHOD FOR PRODUCTION THEREOF

REQUEST FOR CORRECTED FILING RECEIPT

Seattle, Washington 98101

November 14, 2006

TO THE COMMISSIONER FOR PATENTS:
ATTN: OFFICE OF INITIAL PATENT EXAMINATION
FILING RECEIPT CORRECTIONS

In reviewing the official Filing Receipt for the above-identified patent application, applicants' attorney noted that the word "a1n" is misspelled in the title as "ain." Applicants' attorney therefore respectfully requests that the Filing Receipt be revised to read as follows:

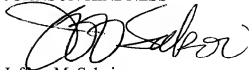
Title

Aluminum material having **a1n** region on the surface thereof and method for production thereof

Enclosed is a copy of the Filing Receipt with the change marked.

Respectfully submitted,

CHRISTENSEN O'CONNOR
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JMS/snh

COPY



ALUMINUM MATERIAL HAVING AlN REGION ON THE SURFACE THEREOF AND METHOD FOR PRODUCTION THEREOF

Technical Field

5 The present invention relates to a process of producing a thick aluminum nitride on the surface of an aluminum material in a short time and to an aluminum material having a thick aluminum nitride region on the surface thereof.

Background Art

10 Conventionally, various methods have been proposed to develop wear resistance by forming an aluminum nitride on the surface of an aluminum material or aluminum alloy. For instance, Japanese Patent Application Laid-Open (JP-A) No. 60-211061 (Reference 1) discloses a process of producing an aluminum material having an aluminum nitride layer, in which the process comprises a step of activating the surface of a material such as aluminum to be treated and a step of ion-nitriding the surface to be
15 treated by glow discharge to form an aluminum nitride layer on the surface.

Also, JP-A No. 5-179420 (Reference 2) discloses a method which improves the drawbacks of JP-A No. 60-211061, i.e., decreased thickness of AlN, unevenness of wear resistance and insufficient adhesion between AlN and a base material. Briefly, JP-A No. 5-179420 discloses an aluminum material comprising a base material such as aluminum,
20 an Al-Ag intermetallic compound layer formed on the surface of the base material and an AlN layer formed on the intermetallic compound layer, with improved wear resistance.

However, the Reference 1 could not provide the AlN layer having sufficient thickness, since the Reference 1 could provide the AlN layer having several tens μm at most, which is actually limited to about several μm , as described in the Reference 2.

25 Also, it takes longer time, e.g., 24 hours to form the AlN layer having a thickness of

JMS



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APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/543,141	04/27/2006	1754	1280	NAI125844	8	25	3

DOCKETED

CONFIRMATION NO. 4288

26389
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SEATTLE, WA 98101-2347

FILING RECEIPT



OC000000020732400

Date Mailed: 10/06/2006

DOCKETED

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Tatsuhiko Aizawa, Iwadokita, JAPAN;
Hideyuki Kuwahara, Tanaka-ohicho, JAPAN;

Assignment For Published Patent Application

RESEARCH INSTITUTE FOR APPLIED SCIENCES, KYOTO-SHI, KYOTO, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number **26389**.

Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP04/00642 01/26/2004

Foreign Applications

JAPAN 2003-015629 01/24/2003

If Required, Foreign Filing License Granted: 10/05/2006

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US10/543,141**

Projected Publication Date: 01/11/2007

Non-Publication Request: No

Early Publication Request: No

PROCESSED DOCKETING

ALG OCT 16 2006

CHRISTENSEN O'CONNOR

Title

Aluminum material having ^{an} ~~an~~ region on the surface thereof and method for production thereof

Preliminary Class

423

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